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PREFACE

As we move forward in science, the professional entomologist who could be classified as a generalist is almost a historical object. The present "scientific data explosion" forces entomologists to align themselves with ever narrowing sectors of the discipline: the mass of facts is growing beyond one's ability to read, digest, and use. In addition, specialties within the discipline are increasing in number so rapidly that it is difficult even to identify an entomologist among the specialists today. He may in fact be a geneticist, a biochemist, or a biophysicist, or a specialist in almost any phase of biological or physical science who finds it convenient to use insects as research animals. To serve all these people, it is urgent that we encourage more scientists to dedicate some of their personal research activities to the writing of review papers. Only through the efforts of such people can we continue to have a reasonable grasp of such a complex discipline as entomology.

The size, diversity, and geographical distribution of its reading public indicates that the *Annual Review of Entomology* serves a real need. The need is especially critical for those who are just beginning their careers and who seek to learn quickly what has been done and what is yet to be done. So useful are the *Annual Reviews* for these young people that some teachers are assigning their students selected chapters as primary reading assignments.

It is an inspiration to the Editorial Committee that so many entomologists have taken the time to suggest needed topics and competent writers. We certainly appreciate these suggestions and wish to express our gratitude for such energetic cooperation. It is hoped that such lobbying will continue.

We are privileged to present in this volume two further chapters on subjects currently being emphasized by the International Biological Program.

As explained in the preface to Volume 6 of the *Annual Review of Entomology*, the Editorial Committee, with the approval of the Board of Directors of Annual Reviews, Inc., voted to use bibliographic titles beginning with Volume 7 (1962). One of the great concerns of the Committee in making this decision was the space needed for the titles. The favorable comments we have received on this editorial change would seem to fully justify this revision in policy.

To conserve space, the Editors have established two policies with respect to the use of bibliographic titles. On those rare occasions when a title is exceedingly long, the Editors have shortened the title; but such citations carry a clear indication that they are shortened. Second, we have deleted from the titles the "systematic guides" to order and family, e.g., Lepidoptera, Pyralidae. These systematic guides sometimes appear as part of the title but at other times as a subtitle, subheading, or footnote. Some editors maintain that they are not part of the functional title. Their main use is to assist

librarians, bibliographers, and others to place references in systematic listings such as those that appear in the *Zoological Record*. Although, technically, systematic guides are part of the title we do not think they are essential in the bibliography of review articles such as appear in the *Annual Review of Entomology*.

Also, as usual, space is inadequate to express properly the Committee's great appreciation for the expert editorial guidance of our Senior Assistant Editor, Miss Beryl V. Daniel, and for the cooperation and publication skill given by the George Banta Company. Without the help and backing of these people, a volume of this quality could not be produced.

The Editorial Committee

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